



DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO

GOVERNOR

MIKE D. McDANIEL, Ph.D.

SECRETARY

Mark D. Suellentrop
Facility General Manager
Cabot Corporation - Canal Plant
P.O. Box 598
Franklin, Louisiana 70538-0598

RE: PSD-LA-591(M-1), Canal Facility, Cabot Corporation, Franklin,
St. Mary Parish, Louisiana

Dear Mr. Suellentrop:

Enclosed is your permit modification, PSD-LA-591(M-1). Construction of the proposed project is not allowed until such time as the corresponding state permit or authorization to construct is issued.

Should you have any questions concerning the permit, contact Keith Mayeux at (225) 219-0478.

Very truly yours,

Chuck Carr Brown, Ph.D.
Assistant Secretary

CCB:KAM

Date

c: US EPA Region VI

ENVIRONMENTAL SERVICES

: PO BOX 4313, BATON ROUGE, LA 70821-4313

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AUTHORIZATION TO CONSTRUCT AND OPERATE A NEW OR MODIFIED
FACILITY PURSUANT TO THE PREVENTION OF SIGNIFICANT
DETERIORATION REGULATIONS IN LOUISIANA ENVIRONMENTAL QUALITY ACT,
LAC 33:III.509

In accordance with the provisions of the Louisiana Environmental
Quality Act, LAC 33:III.509,

Cabot Corporation
Post Office Box 598
Franklin, Louisiana 70538

is authorized to install a tail gas incineration system and
increase production capacity at the Canal Facility near

Franklin
St. Mary Parish, Louisiana

subject to the emissions limitations, monitoring requirements and
other conditions set forth hereinafter.

This PSD modification does not authorize construction of any
additional new or modified sources.

Signed this _____ day of _____, 2006.

Chuck Carr Brown, Ph.D.
Assistant Secretary
Office of Environmental Services
Louisiana Department of Environmental Quality

BRIEFING SHEET

CANAL FACILITY, CABOT CORPORATION
FRANKLIN, ST. MARY PARISH, LOUISIANA
PSD-LA-591 (M-1)

PURPOSE

The purpose of the modification to this PSD is to clarify that the SO₂ emissions limitation is based on an annual average of the weight percentages of sulfur in the feedstock oils, and to reflect the installation of a NO_x CEMS on the incinerator stack, Emission Point 999, in place of Oxygen monitoring correlations.

RECOMMENDATION

Approval of the proposed modification and issuance of a permit.

REVIEWING AGENCY

Louisiana Department of Environmental Quality, OES, Air Permits Division.

PROJECT DESCRIPTION

Rubber and industrial grade carbon black is produced at the Canal Facility by the furnace process in six existing units, CO-3A, CO-3B, CO-5, CO-6, CS-1, and CS-2. Tail gas is filtered in baghouses. Approximately 30% of the tail gas is currently burned as fuel in process heaters and dryers, the remaining 70% is vented to the atmosphere.

With PSD-LA-591, dated October 26, 1995, Cabot proposed to modify four production units and to increase annual plant production to 330,500 tons of carbon black per year. An incinerator was installed to control toxic air pollutants (TAPs) in the tail gas, such as hydrogen sulfide (H₂S), carbonyl sulfide (COS), carbon disulfide (CS₂), and hydrogen cyanide (HCN), as required by the Louisiana Comprehensive Toxic Air Pollutant Emission Control Program. The system also oxidizes carbon monoxide and other volatile organic compounds (VOCs).

BRIEFING SHEET

CANAL FACILITY, CABOT CORPORATION FRANKLIN, ST. MARY PARISH, LOUISIANA PSD-LA-591 (M-1)

Flue gases from the incinerator are combined and cooled to 1,000°F by a water spray system designed to reduce the formation of NO_x. The incinerator operates at approximately 1,900 ± 100°F and 0.5 second residence time to obtain an air toxic destruction efficiency of 99.7%.

The Cabot facility has not undergone any physical changes or changes in the method of operation. Emission rates are not changing.

Estimated emission changes associated with PSD-LA-591 in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>	<u>PSD De Minimis</u>	
PM ₁₀	60	358.09	+	298.09	15
SO ₂	3,760	27,098.70	+	23,338.70	40
NO _x	45	1,813.01	+	1,768.01	40
CO	219,000	6,048.30	-	212,591.70	100
VOC (*)	6,330	201.62	-	6,128.38	40
H ₂ S	7,260	151.86	-	7,108.14	10
CS ₂	-	156.78	-	-	NA
COS	-	48.08	-	-	NA

(*) Including:

HCN	-	42.77	-	NA
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PM₁₀, SO₂, and NO_x emissions increase significantly and must undergo Prevention of Significant Deterioration (PSD) analysis.

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CANAL FACILITY, CABOT CORPORATION
FRANKLIN, ST. MARY PARISH, LOUISIANA
PSD-LA-591(M-1)

TYPE OF REVIEW

PSD-LA-591 was reviewed in accordance with regulations for the Prevention of Significant Deterioration (PSD) for emissions of PM_{10} , SO_2 , and NO_x . The selection of control technology based on the BACT analysis included consideration of control of toxic emissions.

BEST AVAILABLE CONTROL TECHNOLOGY

Control of emissions of PM_{10} , NO_x , and SO_2 were analyzed using a "top down" approach. Design and proper operating practices were determined to be BACT for control of PM_{10} and NO_x emissions. A limitation of sulfur content of the feedstock to 4.0% (annual average) by weight for the rubber units, and 1.25% (annual average) by weight for the industrial units was determined to be BACT for SO_2 emissions.

AIR QUALITY IMPACT ANALYSIS

Prevention of Significant Deterioration regulations require an analysis of existing air quality for those pollutants emitted in significant amounts from a proposed modification or new facility.

Screening dispersion modeling indicated maximum ground level concentrations of NO_x to be below the preconstruction monitoring exemption level and ambient significance level. No increment analysis or refined modeling was required. Screening modeling for PM_{10} and SO_2 predicted concentrations above significance levels for both the preconstruction monitoring exemption level and ambient significance level. The modeled PM_{10} concentrations were below the National Ambient Air Quality Standards (NAAQS) for all time periods. The total modeled SO_2 and background concentrations were below the National Ambient Air Quality Standards (NAAQS) for all time periods. Increment consumption was modeled for PM_{10} and SO_2 , and was found to be within prescribed limits. Emissions of toxic

BRIEFING SHEET

CANAL FACILITY, CABOT CORPORATION
FRANKLIN, ST. MARY PARISH, LOUISIANA
PSD-LA-591 (M-1)

air pollutants show a net decrease due to the project.

ADDITIONAL IMPACTS

Soils, vegetation, and visibility were not adversely impacted by the changes in emissions, nor was a Class I area affected. Additional permanent employees due to the proposed modification and the installation of the new sources at the facility were minimal. Secondary growth effects may include 40 to 50 temporary construction related jobs.

PROCESSING TIME

Application Received: December 2, 2004

Additional Submittals: April 26, 2005, May 11, 2005, July 29, 2005
and January 9, 2006

Effective Completeness Date: January 19, 2006

PUBLIC NOTICE

A notice requesting public comment on the proposed project was published in The Advocate, Baton Rouge, Louisiana, on -----, 2006; and The Franklin Banner-Tribune, Franklin, Louisiana, on ----
-----, 2006.

PRELIMINARY DETERMINATION SUMMARY (PDS)

CANAL FACILITY, CABOT CORPORATION
FRANKLIN, ST. MARY PARISH, LOUISIANA
PSD-LA-591(M-1)
January 19, 2006

I. APPLICANT

Cabot Corporation
Post Office Box 598
Franklin, Louisiana 70538

II. LOCATION

Cabot Corporation, Canal Facility is located approximately seven miles south of Franklin off Highway 317. Approximate UTM coordinates are 647.7 kilometers East and 3,284.7 kilometers North, Zone 15.

III. PROJECT DESCRIPTION

Feedstock oil is received via pipeline or barge, stored in tanks, and then injected into high temperature reactors for cracking into carbon under low oxygen conditions. This process produces off gases containing particulates, sulfur dioxide, nitrogen oxides, carbon monoxide, hydrogen sulfide, acetylene, and other sulfur compounds. The entrained carbon in the exhaust streams are collected in baghouses. Carbon black is further processed by either wet or dry processes, packed, and stored prior to shipment by truck or rail car.

Rubber and industrial grade carbon black is produced at the Canal Facility by the furnace process in six existing units, CO-3A, CO-3B, CO-5, CO-6, CS-1, and CS-2. Approximately 30% of the tail gas is currently burned as fuel in process heaters and dryers, the remaining 70% is vented to the atmosphere.

Cabot proposes to modify four production units to increase annual plant production to 330,500 tons of carbon black per year. An incinerator will be installed to control toxic air pollutants (TAPs) in the tail gas, such as hydrogen sulfide (H_2S), carbonyl sulfide (COS), carbon disulfide (CS_2), and hydrogen cyanide (HCN), as required by the Louisiana Comprehensive Toxic Air Pollutant Emission Control Program.

PRELIMINARY DETERMINATION SUMMARY (PDS)

CANAL FACILITY, CABOT CORPORATION
FRANKLIN, ST. MARY PARISH, LOUISIANA
PSD-LA-591(M-1)
January 19, 2006

The system will also oxidize carbon monoxide and other volatile organic compounds.

Flue gases from the incinerator will be cooled to 1,000°F by a water spray system designed to reduce the formation of NO_x. The incinerator will operate at approximately 1,900 ± 100°F and 0.5 second residence time to obtain an air toxic destruction efficiency of 99.7%.

The purpose of the modification to this PSD is to clarify that the SO₂ emissions limitation is based on an annual average of the weight percentages of sulfur in the feedstock oils, and to reflect the installation of a NO_x CEMS on the incinerator stack, Emission Point 999, in place of Oxygen monitoring correlations.

The Cabot facility has not undergone any physical changes or changes in the method of operation.

Estimated emission changes in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>	<u>PSD De Minimis</u>
PM ₁₀	60	358.09	+ 298.09	15
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H ₂ S	7,260	151.86	- 7,108.14	10
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FRANKLIN, ST. MARY PARISH, LOUISIANA

PSD-LA-591(M-1)

January 19, 2006

PM₁₀, SO₂, and NO_x emission increases are above the PSD de minimis levels and must undergo Prevention of Significant Deterioration analysis.

IV. SOURCE IMPACT ANALYSIS

Emissions of a regulated pollutant above the 100 ton per year major source criterion for new or modified PSD listed category sources requires review under Prevention of Significant Deterioration regulations, 40 CFR 52.21. A new or modified major source must also undergo PSD review for other regulated pollutants emitted above significant (de minimis) emission rates.

PSD permit reviews of proposed new or modified major stationary sources require the following analyses:

- A. A determination of the Best Available Control Technology (BACT);
- B. Analysis of the existing air quality and a determination of whether or not preconstruction or postconstruction monitoring will be required;
- C. An analysis of the source's impact on total air quality to ensure compliance with the National Ambient Air Quality Standards (NAAQS);
- D. An analysis of the PSD increment consumption;
- E. An analysis of the source related growth impacts;
- F. An analysis of source related impacts on soils, vegetation, and visibility;

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CANAL FACILITY, CABOT CORPORATION
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- G. A Class I Area impact analysis; and
- H. An analysis of the impact of toxic compound emissions.

A. BEST AVAILABLE CONTROL TECHNOLOGY

Under current PSD regulations, an analysis of "top down" BACT is required for the control of each regulated pollutant emitted from a new or modified source in excess of the specified significant emission rates. The top down approach to the BACT process involves determining the most stringent control technique available for a similar or identical source. If it can be shown that this level of control is infeasible based on technical, environmental, energy, and/or cost considerations, then it is rejected and the next most stringent level of control is determined and similarly evaluated. This process continues until a control level is arrived at which cannot be eliminated for any technical, environmental, or economic reason. A technically feasible control strategy is one that has been demonstrated to function efficiently on identical or similar processes. A BACT analysis for emissions of PM_{10} , SO_2 , and NO_x will be required for the proposed tail gas incineration system.

Cabot will increase the plant capacity by 64.43 percent. This will increase CO and PM_{10} emissions past PSD significance levels. In order to control CO emissions, tail gases from all production units will be routed to a new incinerator. Overall levels of CO will decrease by approximately 98%, but PM_{10} , SO_2 , and NO_x emissions will increase past significance levels.

Controls of SO_2 emissions are categorized under post-process and pre-process control technologies. Post-process control technologies including tail gas and flue gas desulfurization were analyzed and found to be technically infeasible or cost prohibitive as BACT. Pre-process control technologies include feedstock desulfurization and limitation of sulfur content of

PRELIMINARY DETERMINATION SUMMARY (PDS)

CANAL FACILITY, CABOT CORPORATION
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purchased feedstock. Feedstock desulfurization was determined not to be commercially available for the carbon black process.

Currently, Cabot uses feedstock oils having a maximum sulfur content of 4.0% (annual average) by weight. A limitation of sulfur content of the feedstock to 4.0% (annual average) by weight to produce rubber grade and 1.25% (annual average) by weight to produce industrial grade carbon black was determined to be BACT for SO₂ emissions.

Carbon black from the discharged gas streams, intermittent sources, and fugitives is the main particulate emitted in the carbon black manufacturing process. All sources of carbon black emissions are already controlled to the best extent possible. Vent gases from the processes are controlled by baghouses having removal efficiency of 99.9%. Installation of additional controls would be cost prohibitive.

Controls of NO_x emissions from combustion processes include design and proper operating practices and flue gas treatment. Flue gas treatments such as selective catalytic reduction or selective noncatalytic reduction were considered technically infeasible for application to the carbon black industry. Design and proper operating practices were determined to be BACT for control of NO_x emissions.

B. ANALYSIS OF EXISTING AIR QUALITY

Prevention of Significant Deterioration regulations require an analysis of existing air quality for those pollutant emissions which increase significantly from a proposed modification or new facility. PM₁₀, SO₂, and NO_x are the pollutants of concern in this case.

Screening dispersion modeling indicates maximum ground level concentrations of NO_x below the preconstruction monitoring

PRELIMINARY DETERMINATION SUMMARY (PDS)

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exemption levels and ambient significance levels. No increment analysis or refined modeling is required.

Air dispersion modeling of emissions from the project alone demonstrated that the maximum off property concentration of SO_2 was $152.2 \mu\text{g}/\text{m}^3$ and $21.5 \mu\text{g}/\text{m}^3$ for a 3-hour and 24-hour averaging time, respectively, which are above the modeling exemption level of $25 \mu\text{g}/\text{m}^3$ and monitoring exemption level of $13 \mu\text{g}/\text{m}^3$. The total of monitored and modeled concentrations is below the NAAQS for all time periods.

Maximum off-site concentration of PM_{10} was $5.3 \mu\text{g}/\text{m}^3$ for a 24-hour averaging time, which is above the modeling exemption level of $5 \mu\text{g}/\text{m}^3$.

C. NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS) ANALYSIS

Refined modeling was not required for emissions of NO_x . Refined modeling for SO_2 indicated ambient concentrations of $560.54 \mu\text{g}/\text{m}^3$, $201.52 \mu\text{g}/\text{m}^3$, and $68.55 \mu\text{g}/\text{m}^3$ when summed with monitored concentrations for the 3-hour, 24-hour, and annual time periods, respectively. These are below the NAAQS. A summary of modeling results is presented in Table II.

D. PSD INCREMENT ANALYSIS

Increment analysis was required for PM_{10} and SO_2 emissions. Predicted PM_{10} increment consumption was $21.4 \mu\text{g}/\text{m}^3$ and $3.7 \mu\text{g}/\text{m}^3$ for the respective time periods of 24-hour and annual. Predicted SO_2 increment consumption was $273.9 \mu\text{g}/\text{m}^3$, $68.6 \mu\text{g}/\text{m}^3$, and $3.2 \mu\text{g}/\text{m}^3$ for the respective time periods of 3-hour, 24-hour, and annual. This is within the allowable increment consumption for all periods.

PRELIMINARY DETERMINATION SUMMARY (PDS)

CANAL FACILITY, CABOT CORPORATION
FRANKLIN, ST. MARY PARISH, LOUISIANA
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January 19, 2006

E. SOURCE RELATED GROWTH IMPACTS

Secondary growth effects may include 40 to 50 temporary construction related jobs. Permanent jobs change will be minimal.

F. SOILS, VEGETATION, AND VISIBILITY IMPACTS

There will be no significant impact on area soils, vegetation, or visibility.

G. CLASS I AREA IMPACTS

Breton National Wildlife Area, the nearest Class I area, is over 100 kilometers from the site, precluding any significant impact.

H. TOXIC IMPACT

The selection of control technology based on the BACT analysis included consideration of control of toxic emissions.

V. CONCLUSION

The Air Permits Division has made a preliminary determination to approve an increase in production capacity and the construction and operation of a new tail gas incineration system at Cabot's Canal Facility in Franklin, St. Mary Parish, Louisiana, subject to the attached specific and general conditions. In the event of a discrepancy in the provisions found in the application and those in this Preliminary Determination Summary, the Preliminary Determination Summary shall prevail.

SPECIFIC CONDITIONS

CANAL FACILITY, CABOT CORPORATION
FRANKLIN, ST. MARY PARISH, LOUISIANA
PSD-LA-591(M-1)

1. The permittee is authorized to operate in conformity with the specifications submitted to the Louisiana Department of Environmental Quality (LDEQ) as analyzed in LDEQ's document entitled "Preliminary Determination Summary" dated January 19, 2006 and subject to the following emission limitations and other specified conditions. Specifications submitted are contained in the application and Emissions Inventory Questionnaire dated May 31, 1995, and additional submittals of June 14 and July 19, 1995.

MAXIMUM ALLOWABLE EMISSIONS RATES

Emission Point No.	Description	Unit	PM ₁₀	SO ₂	NO _x
079	Boiler Barge Dock	lbs/hr	0.08	Neg.	2.05
		TPY	0.10	Neg.	2.59
083	Unit CS-1/CS-2 Process Filter	lbs/hr	0.01	0.70	0.34
		TPY	0.03	1.53	0.94
084	Unit CS-1/CS-2 Process Filter	lbs/hr	0.03	3.31	0.81
		TPY	0.08	7.65	2.67
086	Unit CS-1/CS-2 Process Filter	lbs/hr	0.02	1.89	0.61
		TPY	0.07	4.60	2.40
150	CO-3A/CO-3B Process Filter	lbs/hr	0.88	0.74	0.33
		TPY	2.95	1.40	1.10
151	CO-5/CO-6 Process Filter	lbs/hr	2.13	1.21	0.79
		TPY	7.87	3.88	2.70
152	New CO-6 East Purge Gas Filter	lbs/hr	0.04	3.34	1.21
		TPY	0.13	12.93	4.33
153	New CO-6 West Purge Gas Filter	lbs/hr	0.04	3.34	1.21
		TPY	0.13	12.93	4.33
155	Phantom CO-6 Process Filter	lbs/hr	1.30	1.08	0.39
		TPY	5.12	3.46	1.11
158	Phantom CO-6 East Purge Gas Filter	lbs/hr	0.04	3.34	1.21
		TPY	0.13	12.93	4.33
159	Phantom CO-6 West Purge Gas Filter	lbs/hr	0.04	3.34	1.21
		TPY	0.13	12.93	4.33
302	CS-1 & CS-2 Vent Scrubber	lbs/hr	0.07	Neg.	4.84
		TPY	0.03	Neg.	2.23
303	CO-3A & CO-3B Vent Scrubber	lbs/hr	0.04	Neg.	3.77

		TPY	0.03	Neg.	2.44
305	CO-5 Vent Scrubber	lbs/hr	0.06	Neg.	3.77
		TPY	0.02	Neg.	1.02
72A	Unit CO-5 East Purge Gas Filter	lbs/hr	0.02	2.07	0.63
		TPY	0.07	6.63	2.33
72B	Unit CO-5 West Purge Gas Filter	lbs/hr	0.02	2.07	0.63
		TPY	0.07	6.63	2.33
999	Incinerator Stack	lbs/hr	88.51	7540	441.4
		TPY	321.06	27011	1762.5

SPECIFIC CONDITIONS

CANAL FACILITY, CABOT CORPORATION
FRANKLIN, ST. MARY PARISH, LOUISIANA
PSD-LA-591(M-1)

2. To ensure compliance with the emission limits contained in this permit, the permittee shall institute a system using a mass balance to calculate the SO₂ emissions from the process (i.e., process filter vents, purge gas vents, combusted tail gas vents, and fugitives). The following variables shall be recorded each day.
 - a. The weight percent of sulfur in feedstock oil to all reactors.
 - b. The total pounds of feedstock oil processed in the reactors.
 - c. The total pounds of sulfur entering all reactors (feedstock oil sulfur mass fraction times total mass oil processed (lbm)).
 - d. The amount of SO₂ emitted from the process (80 % of the sulfur mass feed times two).

Record total SO₂ emissions each month, as well as the total SO₂ emissions and for the preceding twelve months. Emissions above the annual permit limit in any consecutive twelve (12) month period shall be a violation of the permit and must be reported to the Office of Environmental Compliance, Enforcement Division. These records shall be kept on-site and available for inspection by the Office of Environmental Compliance, Surveillance Division. A report showing the monthly average sulfur content of the feedstock to the reactors and the SO₂ emissions from the process cap for the preceding 12 months shall be submitted annually by the 31st of March to the Office of Environmental Compliance, Enforcement Division.

SPECIFIC CONDITIONS

CANAL FACILITY, CABOT CORPORATION
FRANKLIN, ST. MARY PARISH, LOUISIANA
PSD-LA-591(M-1)

3. Permittee shall demonstrate compliance with permitted emission limits of Specific Condition 1 by performing stack tests using methods found in 40 CFR 60, Appendix A for the incinerator stack, Emission Point 999 as follows:
 - A) SO₂ by Method 6 - Determination of Sulfur Dioxide Emissions from Stationary Sources;
 - B) NO_x by Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources; and
 - C) PM₁₀ by Method 5 - Determination of Particulate Emissions from Stationary Sources.

Other methods suitable to the Engineering Support Section may be substituted as approved in the pretest meeting.
4. Permittee shall install and operate on the incinerator stack, Emission Point 999, a flue gas NO_x Continuous Emission Monitoring System (CEMS). The NO_x CEMS shall be installed, calibrated, operated and maintained according to manufacturer's specifications. The NO_x CEMS shall be certified according to performance specification 2 of 40 CFR 60 Appendix B. The QA/QC provisions of procedure 1 of 40 CFR 60 Appendix F shall also apply.
5. Permittee shall process feedstock with a sulfur content of 4.0% (annual average) or less by weight to produce rubber grade and 1.25% (annual average) or less by weight to produce industrial grade carbon black. Exceedance of the sulfur content limit of feedstock to the reactors shall be a violation of this permit and must be reported to the Air Quality Division, Enforcement Section. Records of the sulfur content of the feedstock oil to the rubber units and the industrial grade units from Specific Condition No. 4 shall be kept on-site and available for inspection by the Surveillance Division as specified in Specific Condition No. 2.

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.
- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.
- III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated December 1, 2004, along with supplemental information dated April 27, and May 11, 2005.
- IV. This permit shall become invalid, for the sources not constructed, if:
 - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
 - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.

The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.

This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.
- V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.
- VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.
- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Surveillance Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.
- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.
- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Surveillance Division with a written report as specified below.
 - A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 - B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
 - C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:
 - 1. Report by June 30 to cover January through March

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2. Report by September 30 to cover April through June
3. Report by December 31 to cover July through September
4. Report by March 31 to cover October through December

D. Each report submitted in accordance with this condition shall contain the following information:

1. Description of noncomplying emission(s);
2. Cause of noncompliance;
3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.

E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.

XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:

- A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
- B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
- C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
- D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.

XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.

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- XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.
- XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.
- XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services, Air Permits Division, within ninety (90) days after the event, to amend this permit.
- XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:
1. Generally be less than 5 TPY
 2. Be less than the minimum emission rate (MER)
 3. Be scheduled daily, weekly, monthly, etc., or
 4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]
- These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:I.3901.
- XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:
- Attention: Office of the Secretary, Legal Services Division
La. Dept. of Environmental Quality
Post Office Box 4302
Baton Rouge, Louisiana 70821-4302
- XIX. Certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

TABLE I

BACT COST SUMMARY FOR SO₂
PSD-LA-591

Control Alternative	Availability/ Feasibility	Negative Impacts	Control Efficiency (%)	Emissions Removed (TPY)	Annualized Cost (\$)	Total Cost Effectiveness (\$/Ton)	Incr. Cost Effectiveness (\$/Ton)
Feedstock Desulfurization	N/N						
Feedstock Sulfur Content Limit	Y/N	1 (b)	25-69				
TGD Sulfur Recovery (Claus Process)	Y/N (c)						
TGD Amine Scrubbing/Sulfur Recovery	N/N						
TGD Non-Regenerative Wet Scrubbing	Y/Y	1,2	90			(d)	
TGD Iron Liquid Redox Process	Y/N						
TGD Stretford Process	Y/N						
FGD Non Regenerative Wet Scrubbing	Y/Y	1,2	90	27,300	\$11,971,500- \$21,433,500	\$671 - \$1,075 (d)	
FGD Regenerative Wet Scrubbing	Y/N (e)	1	90				
FGD Semi-Dry Scrubbing	Y/N (f)	1,2	90				

Notes: a) Negative impacts: 1) economic, 2) environmental, 3) energy.

b) Limited availability of low sulfur feedstock. Incorporated in project design. Cost of further limitation makes product uneconomical.

c) Tail gas H₂S concentration insufficient to make process viable.

d) cost of control increases product price to uneconomic levels.

e) Technically feasible, no proven applications.

f) Excessive cost and space requirements.

g) Incorporated in project design.

TGD: Tail Gas Desulfurization

FGD: Flue Gas Desulfurization

TABLE II

SUMMARY OF AIR QUALITY ANALYSIS
PSD-LA-591

Pollutant	Averaging Period	Current Monitored Background	Modeled Maximum Impact of Modification	Level of Significant Impact	Model + Monitored Concentration	National Ambient Quality Standard	Modeled PSD Increment Consumption	Allowable Class II PSD Increment
PM ₁₀	24-hour	NA	41.20	5	41.20	150	21.4	30
	Annual	NA	7.40	1	7.40	50	3.7	17
SO ₂	3-hour	95.84	464.70	25	560.54	1300	273.9	512
	24-hour	69.22	132.30	5	201.52	365	68.6	91
NO _x	Annual	31.95	36.60	1	68.55	80	3.2	20
	Annual	NA	-0.03	1	Not Required	100	Not Required	25